Markov/Monte Carlo simulation techniques to describe the long-term incidence and progression of diabetes-related complications. It was used to simulate disease progression in a cohort of patients with baseline characteristics (mean age 18.6 years, duration of diabetes 12 years, mean HbA1c 7.5%) and clinical outcomes (severe hypoglycaemic event rates; Quality of Life; HbA1c) taken from a recent randomised controlled trial (Ly et al, 2013). Local treatment and complication cost data was used. The main scenario considered in this cost-effectiveness analysis was the comparison of sensor-augmented insulin pump (SAP) with low glucose suspend (LGS) versus insulin pump alone (CSII). The target population was type I hypo-prone diabetes patients with the analysis based on a deterministic micro-simulation of 1,000 patients, using a 5 year time horizon. Direct costs were calculated from a third-party payer perspective. Discount rates of 3% per annum were applied to both costs and clinical outcomes. **RESULTS:** The Incremental-Cost-Effectiveness-Ratio (ICER) for SAP+LGS (vs CSII) was €17,893 per Quality-Adjusted-Life-Year gained over a 5 year time horizon. Results were similar across a 1 to 10 year time horizon. Other extensive sensitivity analyses showed the robustness of the results. **CONCLUSIONS:** Using a payer's perspective, our analysis showed that SAP (w LGS) is cost-effective over a short term (5 year) time horizon in hypo-prone Type 1 Diabetes patients in Slovakia (using a WTP threshold of 1x [€18,000] or 3x [€54,000] Slovakia GDP).

PDB80

IS A HOME BASED VIDEO TELECONCULTATION SETUP COST EFFECTIVE FOR LOWERING HBA1C FOR PATIENTS WITH TYPE-2 DIABETES OVER A SIX-MONTH PERIOD?

Jensen MS[1], Rasmussen OW[2]

[1]*Region of Southern Denmark, Middelfart, Denmark,* [2]*Kolding Hospital, Kolding, Denmark*

OBJECTIVES: A RCT assessed the effectiveness and costs of a home based video teleconsultation (HVT) setup to lower HbA1c in patients with type-2 diabetes against usual out-patient treatment on the hospital. The HVT equipment was delivered to the patients by the hospital. This analysis shows the potential incremental cost-effectiveness ratio (ICER) of using a HVT setup on six-months health care effects and costs. **METHODS:** The study effectiveness outcome was HbA1c level in %. The economic analysis was performed with a spreadsheet decision tree model with a Danish hospital payer's direct cost perspective. Cost data were based on study measured time consumption pr. HVT, consultations at out-patient clinic, HVT-equipment, -subscription, -support costs, and hospital operating cost. Medicine costs weren't included in the model. Model output included the cost of a 1 % point reduction of HbA1c, ICER, with a probabilistic sensitivity analysis (PSA). Two scenario analyses (SA) were made to capture costs of patient transport to the hospital and a future online platform, were patients can use their own computer/tablet to the video teleconsultations. **RESULTS:** A total of 39 patients (mean age 62, HbA1c 8.5%) were randomized to either usual care (UC) or HVT. At 6 months follow up the HVT group showed greater improvements from baseline HbA1c levels (-1.38% vs. -0.92%) and less costly (€199.9 vs. €208.2) against UC. The base case ICER showed a potential €–17.58 saving per reduction of 1% HbA1c point. A PSA confirmed the ICER trends despite data uncertainties. Both SA showed further savings (ICER: €-67.85 and €-69.13). Compliance was 100% for HVT group were several planned visits were cancelled in the UC group. **CONCLUSIONS:** The present analysis shows the potential benefits of a HVT setup on 6-months health care cost and effects against UC. Further savings could include cost associated with lost work days.

PDB81

THE COST-EFFECTIVENESS OF CANAGLIFLOZIN VERSUS INSULIN-SECRETAGOGUES (SULPHONYLUREAS) OR INSULIN IN PATIENTS WITH TYPE 2 DIABETES MELLITUS (T2DM) AS AN ADD-ON TO METFORMIN IN IRELAND

Bacon T[1], Willis M[2], Johansen P[2], Neslusan C[3], Nuhoho S[4], Worbes-Cerezo M[5]

[1]*Janssen-Cilag Ltd, Dublin, Ireland,* [2]*The Swedish Institute for Health Economics, Lund, Sweden,* [3]*Janssen Global Services, LLC, Raritan, NJ, USA,* [4]*Janssen-Cilag A/S, Birkerød, Denmark,* [5]*Janssen-Cilag UK, High Wycombe, UK*

OBJECTIVES: Sulphonylureas (SU) and insulin are used routinely in the management of T2DM but are associated with weight gain and increased risk of hypoglycaemia. Canagliflozin is a new insulin-independent oral glucose lowering agent with added benefits of weight loss, blood pressure reduction and no increased risk of hypoglycaemia. This analysis estimated the cost-effectiveness of canagliflozin compared to either SU or insulin in patients failing to achieve glycaemic control on metformin monotherapy in Ireland. **METHODS:** The Economic and Health Outcomes Model of T2DM (ECHO-T2DM) was used to simulate the lifetime outcomes and costs associated with canagliflozin (100mg, titrated to 300mg as needed to maintain glycaemic control) versus SU and versus insulin glargine. Patient characteristics and treatment effects for the SU comparison were sourced from a head-to-head randomized clinical trial vs. glimepiride. Hypoglycaemia rates were halved to reflect gliclazide MR (the preferred SU in Ireland). Patient characteristics for the insulin glargine comparison were obtained from the pooled canagliflozin add-on to metformin RCTs; treatment effects were sourced from a network meta-analysis. Costs were localised and inflated to 2013 euros. Utilities were sourced from the literature. Costs and outcomes were discounted at 5% annually. **RESULTS:** The incremental costs, QALY gains and ICERs associated with canagliflozin were €2,404, 0.215 QALYs and €11,191 per QALY gained, respectively, versus SU and €2,352, 0.228 QALYs and €10,305 per QALY gained, respectively, versus insulin glargine. Key drivers were decreased hypoglycaemia and lower weight-related disutility versus both comparators, as well as better HbA_{1c} durability versus SU. In both cases, using an acceptable Irish willingness-to-pay threshold, the probability of being cost-effective was in excess of 97%. Sensitivity analyses support the robustness of these results. **CONCLUSIONS:** These simulations suggest that canagliflozin is a cost-effective treatment choice versus both gliclazide MR and insulin glargine in patients failing to control glycaemia on metformin alone.

PDB82

COST EFFECTIVENESS EVALUATION OF CANAGLIFLOZIN IN COMBINATION WITH METFORMIN IN THE TREATMENT OF TYPE 2 DIABETES MELLITUS IN POLAND

Szmurlo D[1], Drzal R[1], Plisko R[1], Schubert A[2], Skrzekowska-Baran I[3]

[1]*HTA Consulting, Krakow, Poland,* [2]*Janssen Cilag Poland, Warszawa, Poland,* [3]*Janssen-Cilag Polska, Warszawa, Poland*

OBJECTIVES: To evaluate the cost-effectiveness of canagliflozin, an active inhibitor of sodium glucose co-transporter – 2 (SGLT2) in dual therapy as add-on to metformin compared to sitagliptin and glimepiride. Canagliflozin in clinical trial results showed effective glucose reduction, along with other benefits in diabetes treatment including weight loss and SBP reduction. Cost effectiveness analyses were conducted in the Polish setting from a public perspective in accordance with guidelines of Polish HTA Agency (PolAHTA). **METHODS:** The IMS CORE Diabetes Model was used to evaluate the cost-effectiveness of canagliflozin versus the aforementioned comparators using Polish-specific data, where available. Direct costs were reported in Polish zloty and an annual discount rate of 5% and 3.5% were applied on costs and effects respectively. **RESULTS:** In dual therapy as add-on to metformin, canagliflozin 100 mg dominates sitagliptin with average cost savings of 2 811 zł and an average QALY gain of 0.06, canagliflozin 300 mg is cost effective option in comparison to sitagliptin with an incremental cost effectiveness ratio (ICER) of 45 008 zł per QALY and QALY gain of 0.09. As add-on to metformin canagliflozin is a cost effectiveness option in comparison with glimepiride with ICER of 28 454 zł and 73 102 zł, QALY gain 0,112 QALY and 0,140 QALY for canagliflozin 100 mg and 300 mg respectively. All results are below defined in Polish reimbursement act cost-effectiveness threshold. **CONCLUSIONS:** These results suggest that adding Canagliflozin to metformin versus sitagliptin or glimepiride in patients inadequately controlled with metformin would be a more efficient use of health care resources in the Polish setting.

PDB84

COST-EFFECTIVENESS OF INTERVENTIONS AIMED AT DECREASING THE NUMBER OF AMPUTATIONS AMONG PATIENTS WITH DIABETES MELLITUS

Ignatyeva V[1], Avxentyeva M[1], Galstyan GR[2], Bregovskiy V[3], Udovichenko O[4]

[1]*The Russian Presidential Academy of National Economy and Public Administration, Moscow, Russia,* [2]*The Endocrinological Scientific Center, Moscow, Russia,* [3]*Federal Almazov Medical Research Center, St. Petersburg, Russia,* [4]*Moscow Municipal outpatient clinic #22, Moscow, Russia*

OBJECTIVES: To evaluate the cost-effectiveness of interventions aimed at decreasing the number of amputations among patients with diabetic foot ulcers (DFU) in Russia. **METHODS:** We have modeled the changes in the annual outcomes (minor and major amputations) and costs (services provided in outpatient clinics and hospitals, medications, orthopedic shoes and prosthetic devices and services provided in case of amputation) from the perspective of public health and social care. Two interventions were assessed: preventive services for patients with the very high risk of DFU (additional outpatient visits for foot care and orthopedic shoes) and provision of care for DFU patients at hospital by multidisciplinary foot care team (MDT). The current number of amputations and costs among DFU patients in Russia was assessed on the basis of published Russian data and experts' survey. The expected effectiveness of interventions was derived from the international publications. Costs were estimated on the basis on reimbursement rates in public medical insurance and social care. **RESULTS:** The implementation of hospital care by MDT for cohort of 1000 DFU patients at the current rate of hospitalizations will require additional annual spending of €532,520, and the expected annual number of major amputations will decrease by 41. The ICER for this intervention is €12,988 per prevented amputation, which is almost 2 times higher than the costs associated with major amputation at the current moment. For the preventive services, if all patients are compliant, additional costs per prevented amputation are slightly lower - € 10,216, but also well above the costs of major amputation. **CONCLUSIONS:** Both interventions require considerable additional budget spending. Preventive measures, if all the patients follow the recommendations, are more cost effective than introduction of hospital MDT.

PDB85

THE COST-EFFECTIVENESS OF CANAGLIFLOZIN COMPARED WITH LIRAGLUTIDE IN PATIENTS WITH TYPE 2 DIABETES INADEQUATELY CONTROLLED WITH METFORMIN AND SULFONYLUREA IN FRANCE

Troelsgaard A[1], Pitcher A[2], Granados D[3], Hemels M[1], Lloyd A[2]

[1]*Janssen A/S, Birkerød, Denmark,* [2]*IMS Health, London, UK,* [3]*Janssen, Paris, France*

OBJECTIVES: Canagliflozin is a sodium-glucose co-transporter 2 (SGLT2) inhibitor used in treatment of patients with type 2 diabetes mellitus (T2DM). The objective is to estimate the cost-effectiveness of canagliflozin (100mg once daily and 300mg once daily) compared with liraglutide in combination with metformin and sulfonylurea (SU) for the treatment of T2DM inadequately controlled with metformin and SU in France. **METHODS:** The IMS CORE Diabetes Model was used to project clinical and economic outcomes for patients with T2DM treated with canagliflozin or liraglutide, each in combination with metformin and SU. Since direct trial data were not available, the relative treatment effects on HbA_{1c}, SBP and BMI for liraglutide 1.8mg in combination with metformin and SU were derived from a network meta-analysis (NMA) of treatment effects at 26 weeks. This study is limited by the absence of direct or indirect data on the effect of liraglutide 1.2mg in combination with metformin and SU, therefore the relative treatment effects on HbA_{1c} and BMI at 26 weeks for liraglutide 1.2mg were estimated using the dose-response relationship from a NMA based on treatments in combination with metformin only. French market share data were used to weight the results of liraglutide 1.8mg and 1.2mg. **RESULTS:** Canagliflozin 100mg showed cost savings when compared to treatment with liraglutide (1,388 €); incremental QALYs were estimated as -0,035. Canagliflozin 300 mg was dominant, with cost savings of 1,411 € and relatively small incremental QALY gain of 0.003. **CONCLUSIONS:** The analyses found that treatment of T2DM with canagliflozin 100mg or 300mg instead of liraglutide as add on to metformin